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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,591	10/17/2001	Alex Dergun	062891.0578	7574

5073 7590 12/15/2004

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EXAMINER	
FRAZIER, OWEN J	

ART UNIT	PAPER NUMBER
2687	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/982,591	DERGUN ET AL.	
	Examiner	Art Unit	
	Owen J Frazier	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2004121*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on 10/17/2001 has been considered.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10, 12, 13, and 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Yahata (US Pat# 6,480,483).

Regarding claim 1, Yahata teaches a system for synchronizing clock dividers in a wireless network in figure 4 comprising:

a first plurality of wireless base stations formed into a first cluster (G10), a second plurality of wireless base stations formed into a second cluster (G11), wherein at least a first wireless base station (CS1) in the first cluster (G10) has a wireless link to a first base station (CS101) in the second cluster (G11). Base station (CS1) is operable to transmit a synchronization pulse to other wireless base stations in the first cluster and to the first wireless base station (CS101) in the second cluster (G11). The first wireless base station (CS101) in the second cluster (G11) is operable to transmit the synchronization pulse to other wireless base stations (CS111 and CS112) in the second cluster (G11). All the wireless

base stations reset internal clock dividers in response to the synchronization pulse in order to be synchronized (Col. 15 lines 40-67 and Col. 16 lines 9-20).

Regarding claim 2, Yahata teaches the first wireless base station (CS101) and part of (CS1) of the first cluster (G10) also lie in the second cluster (G11).

Regarding claim 3, Yahata teaches the synchronization pulse can be propagated to all wireless base stations over a wireless transmission link (Col. 12 lines 5-9, Col. 18 lines 36-41, Col. 19 lines 24-27, and Col. 22 lines 22-25).

Regarding claim 4, Yahata teaches the propagation of the synchronization pulse occurs over a same wireless transmission link as used by all base stations to communicate with mobile stations because one transmission link is used, therefore it is the same link (Col. 12 lines 5-9, Col. 18 lines 36-41, and Col. 19 lines 24-27).

Regarding claim 5, Yahata teaches the propagation of the synchronization pulse occurs over the wired link used to connect the base stations to the network (Fig. 1 Col. 12 lines 9-13, Col. 13, lines 30-36, ISDN is a wired network).

Regarding claims 6 and 7, Yahata teaches that the synchronization pulse can be selectively set to be transmitted during a mobile station low usage period on a periodic basis and gives the example of two o'clock in the morning every day (Col. 6 lines16,17, Col. 8 lines 15-18, Col.13 lines 5-12, Col. 14 lines 18-26, and Col. 15 lines 8-18).

Regarding claim 8, Yahata teaches the synchronization pulse can be transmitted on a non-periodic basis (Col. 8-9).

Regarding claim 9, Yahata teaches the internal clock dividers being operable to generate local signals for use by corresponding base stations in response to receipt of a

master clock signal (Figs. 5 and 6, Col. 10 lines 35-43, Col. 15 lines 40-67, Col. 17 lines 9-33, and Col. 19 lines 24-27).

Regarding claim 10, Yahata teaches the synchronization pulse being operable to provide synchronization of local signals among all of the wireless base stations (Figs. 5 and 6, Col. 10 lines 35-43, Col. 15 lines 40-67, Col. 17 lines 9-33, and Col. 19 lines 24-27).

Regarding claim 12, Yahata teaches a method for synchronizing clock dividers in a wireless network in figure 4 comprising:

a grouping of a first plurality of wireless base stations into a first cluster (G10); a grouping of a second plurality of base stations into a second cluster (G11), one of the first plurality of wireless base stations being in the second cluster (CS101 and part of CS1); transmitting a synchronization pulse to each of the fist plurality of wireless base stations in the first cluster (G10); transmitting the synchronization pulse to the second plurality of wireless base stations in the second cluster (G11) through one of the first plurality of first wireless (CS101) base station in the second cluster; resetting clock dividers in each wireless base station in response to the synchronization pulse (Col. 15 lines 40-67 and Col. 16 lines 9-20).

Regarding claim 13, the limitations of the claim are rejected as the same reason set forth in claim 4.

Regarding claim 15, the limitations of the claim are rejected as the same reason set forth in claim 7.

Regarding claim 16, the limitations of the claim are rejected as the same reason set forth in claim 8.

Regarding claim 17, Yahata teaches a base station with a local clock unit having a clock divider operable to receive a master clock signal, and to generate local signals in response to the master clock signal; a wireless interface operable to receive a synchronization pulse, the clock divider operable to reset in response to the synchronization pulse so that the local signals can be synchronized with local signals from other base stations (Col. 5 lines 48-55, Col. 15 lines 40-67, Col. 16 lines 9-20, Col. 12 lines 5-9, Col. 18 lines 36-41, Col. 19 lines 24-27, Col. 22 lines 22-25, Figs. 5 and 6, Col. 10 lines 35-43, Col. 15 lines 40-67, Col. 17 lines 9-33, and Col. 19 lines 24-27).

Regarding claim 18, the base station's wireless interface is operable to transmit the synchronization pulse to one or more other base stations (Col. 15 lines 40-67 and Col. 16 lines 9-20).

Regarding claim 19, the wireless interface provides communications for one or more mobile stations (Col. 12 lines 7-9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 11, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahata (US Pat# 6,480,483).

Regarding claim 11, Yahata teaches the local signals between all of the wireless base stations are synchronized to a predetermined high precision time (Col. 10 lines 1-20 and Col. 18 5-16). Yahata fails to specifically point out that they are synchronized within one period, however, one of ordinary skill in the art would recognize that high precision would include the option of being within one period and would be obvious to do this for channel utilization efficiency.

Regarding claim 14, Yahata teaches the internal clock dividers being operable to generate local signals for use by corresponding base stations in response to receipt of a master clock signal (Figs. 5 and 6, Col. 10 lines 35-43, Col. 15 lines 40-67, Col. 17 lines 9-33, and Col. 19 lines 24-27). Yahata teaches the synchronization pulse being operable to provide synchronization of local signals among all of the wireless base stations (Figs. 5 and 6, Col. 10 lines 35-43, Col. 15 lines 40-67, Col. 17 lines 9-33, and Col. 19 lines 24-27). Yahata teaches the local signals between all of the wireless base stations are synchronized to a predetermined high precision time (Col. 10 lines 1-20 and Col. 18 5-16). Yahata fails to specifically point out that they are synchronized within one period, however, one of ordinary skill in the art would recognize that high precision would include the option of being within one period and would be obvious to do this for channel utilization efficiency.

Regarding claim 20, the limitations of the claim are rejected as the same reason set forth in claim 11.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Du (US Pat# 6,622,022), Nakahara (US Pat# 5,473,668), Toda (US Pat# 5,448,570), Struhsaker (US Pat# 6,804,527), Grilli (US Pat# 6,438,117), Arazi (US Pat# 6,430,395), Heineck (US Pat# 5,519,759), and Itri (US Pat# 5,864,592).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Owen J Frazier whose telephone number is (703) 305-0548. The examiner can normally be reached on Monday-Friday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (703) 306-3016. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12/13/07
LESTER G. KINCAID
PRIMARY EXAMINER